

DOCUMENT RESUME

ED 301 385

RC 016 837

TITLE Regenerating America: Opportunities To Build On.
INSTITUTION Rodale Press, Inc., Emmaus, PA.
PUB DATE 86
NOTE 51p.; A product of the Regeneration Project.
PUB TYPE Guides - Non-Classroom Use (055) -- Viewpoints (120)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Community Change; Community Coordination; *Community Development; Community Programs; *Community Resources; Conservation (Environment); Economic Development; *Economic Opportunities; *Employment Opportunities; *Recycling; *Resource Allocation

ABSTRACT

Many communities are unaware of the power they have and are therefore unfamiliar with how to use it. This document, by the Regeneration Project in Emmaus, Pennsylvania, is directed toward helping community leaders identify and develop opportunities that will help them expand their businesses, employment, and tax base, and improve their overall economic vitality. The first part of the document is an overview of some local, regenerative business opportunities that have worked for other communities. Each of the proposals is from communities where the Regeneration Project has been active, linking community leaders and businesses with local resources. Program proposals are categorized under seven headings: Manufacturing, Energy, Housing, Health, Food, Resource Management, and Economic Development. Some of the proposed projects include: vehicle remanufacturing; malls specializing in furniture and appliance repair; band uniform manufacturing; door manufacturing; residential energy conservation; industrial energy conservation; owner-built housing; hospital infection control; local food production and processing; urban farming; yogurt production; local school lunch programs; greenhouses that use waste heat from electric plants; rubber and plastics recycling; glass, paper and metal recycling; composting municipal leaves; community regeneration projects; local exchange/trading systems; expanding local marketplaces; and "regenerative" tourism. A final chapter describes several systems developed by the Regeneration Project to help communities make better, more informed decisions about their own economic development. Contains 22 references. (TES)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

REGENERATING AMERICA:
Opportunities to Build On

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

ELLEN M.
PAHL

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

By

The Regeneration Project
33 East Minor Street
Emmaus, Pennsylvania 18049

© 1986 Rodale Press, Inc.

TABLE OF CONTENTS

INTRODUCTION

OPPORTUNITIES IN MANUFACTURING

Automobile Remanufacturing
Tractor Remanufacturing
Repair Mall
Band Uniforms
Building Doors and Windows Locally

OPPORTUNITIES IN ENERGY

Residential Energy Conservation
Local Energy Production: Cogeneration

OPPORTUNITIES IN HOUSING

Owner-Built and Rehabilitated Housing
Home Market Search: Locating "Hidden" Opportunities

OPPORTUNITIES IN HEALTH

Local Hospitals Can Lower Disease Rates and Save Money

OPPORTUNITIES IN FOOD

Local Food Production
Local Food Processing
Farming the City
Yogurt: An Opportunity for Farmers
Fresh Herbs for City Markets
Better School Lunches
Green Power: Greenhouse/Electric Power Plant Connection

OPPORTUNITIES IN RESOURCE MANAGEMENT

Forest-Based Development
Waste Products Become New Products
New Uses for Olds Tires
Saving Money, Producing Energy
Turning Over a New Leaf with Municipal Composting

OPPORTUNITIES IN COMMUNITY ECONOMIC DEVELOPMENT

Regeneration Day
Green Pages - Directory of the Local Economy
Local Exchange and Trading System
Buying Local: Chicago's Development Plan
Expanding Local Businesses in the Local Marketplace
Regenerative Tourism

NEXT STEPS: TOOLS FOR DISCOVERING OPPORTUNITY

Manufacturing and Resources: Local Economy Inventory and Natural
Resources Inventory
Energy and Housing: Home-Market Search, Energy Search
Food and Agriculture: AgMarket and Farmer Search
Conclusion

BIBLIOGRAPHY

INTRODUCTION

Your community has tremendous power.

For every 10,000 people, your community spends some \$90 million each year on your food, energy, health care, home repair, housing, recreation and transportation. This buying power can exert immense leverage in your local community.

Many communities are unaware of the power they have and are therefore unfamiliar with how to use it. What The Regeneration Project seeks to do is to show communities how to use the power of their local economy. By choosing to direct more of your economic power back into the local economy rather than purchasing products from outside your area, you will be able to leverage that money into having a widespread beneficial impact on the entire economy.

For example, every dollar that you can keep within your community will have the impact of \$1.25 to \$3.00 worth of economic activity. This multiplying effect, or staying power, strengthens the local economy. By choosing to use some of your income for products and services that can be produced within the region, you will increase business and employment opportunities, tax revenues, and overall economic vitality.

The key to learning how to use this local economy power is to have information about the local economy -- how it works, what it is made of, what abundant resources exist, what your capacities are, and most important, what opportunities there are for development.

Opportunity is the name of the game.

Business opportunity.

Regenerative business opportunity.

"Regenerative" because communities need opportunities that provide employment to local people, stress the use of local resources, substitute for imports, diversify and strengthen the vitality of the economy, and increase the control that the community has over its economic destiny. These regenerative opportunities are based on restoring and expanding the economic vitality and power of your community.

The Regeneration Project's purpose is to identify and help develop opportunities for you and your community that will enable you to expand your businesses, employment, tax base, and overall economic vitality. The following pages illustrate a few opportunities that have worked for other communities. Some may be more relevant to you and your community than others. Some may be easy to get off the ground. Others, for the moment, could be difficult. They are not recommendations. They are merely possible directions or starting points that one or more individuals in your community could take, given their entrepreneurial daring, wants and inclinations.

Pursuing these opportunities could make some money for enterprising individuals and reward the rest of the community by increasing the number of jobs and dollars that stay in your area.

The people of your community are a vast source of power that your local economy can draw upon. The individuals living in your area are a tremendous resource which can be tapped for locating even more opportunities than the few presented in this booklet. The people of your community, better than anyone else, can identify resources and

existing opportunities which outsiders would certainly miss. You and others will therefore be able to offer other opportunity examples to build your local economy.

Economic development is obviously not a new endeavor. Commissions, committees, and a myriad of other groups have as their focus economic development, job creation, and business expansion. Regenerative economic opportunities, however, meet certain criteria not always high on the list of priorities for conventional development. The following set of questions can be asked of a potential new enterprise or opportunity to determine if it will lead to local regeneration.

1. Does the product or service keep more money within the community?
2. Does it lead to lower imports into the community?
3. Are locally available resources and products utilized as much as possible?
4. Is the product or service something the community needs?
Will it move the community closer to its goals?
5. Will the enterprise employ local people?
6. Will it help diversify the local economy?
7. Will it be overly dependent on outside-the-community economics?
8. How vulnerable will it be to factors outside the community's control?

9. Does the business and product operate in a way that does not harm the environment?
10. Does it enhance the community's power over its own economics?

This Booklet

There are two parts to this booklet. The first is the above mentioned overview of some local, regenerative business opportunities. The second section is a bibliography on the opportunities that are presented.

This booklet and our other literature on the general concepts of regeneration are the first stages of a broad vision of economic growth and revitalization that may be of use to your community. They are the raw beginnings of what The Regeneration Project can do in partnership with you and your community.

Each of the examples in these pages has been described using "regeneration zones" where The Regeneration Project has been active. Regeneration zones are self-defined regions or localities where residents build community economic strength from locally available resources. There are currently zones in Arkansas and Pennsylvania. In both states The Regeneration Project has established working partnerships with community leaders to address economic issues.

Summary

It is our hope that the following examples will be of use to you and your community. If you would like additional information about these opportunities or wish to contact the people actually involved in these efforts, we request that you first get in touch with us. It is also our hope that the opportunities listed in this booklet will generate in your mind still other opportunities for exploration and development.

II. OPPORTUNITIES IN MANUFACTURING

Automobile Remanufacturing

The Pittsburgh, Pennsylvania area has approximately 657,000 automobiles. Each year about seven percent of this stock is replaced. The cost of all these new automobiles is over \$322 million. Most of this capital leaves the region.

An alternative to importing brand new \$7,000-\$20,000 cars is remanufacturing used vehicles into as-good-as-new vehicles that are warranted for 12,000 miles or 12 months and which would sell for about \$6,000.

The market for new vehicles in the Pittsburgh/Allegheny County area is approximately 46,000 per year. The exact market for remanufactured vehicles would not be known until a market search could be undertaken, but estimates are that it would be about 4,600 vehicles per year. A facility that could turn out 200 cars per year would employ about 40 people and generate a gross income of around \$1.2 million. Meeting the demand for 4,600 remanufactured cars could generate a gross income around \$36.8 million and employ over 900 people. This total includes the fleet vehicles remanufacturing market for police departments, utility companies, large corporations, taxicabs, and other organizations. With a multiplier effect acting on the money that remains in the region, an additional \$8 million would be generated throughout the local economy, for a total economic impact of \$47.4 million.

Tractor Remanufacturing

A variation on the remanufacturing theme occurs with tractors. There are 81,000 tractors in Arkansas, with over 5,900 in the five counties of Chicot, Desha, Drew, Jefferson and Lincoln in the southeastern part of the state. Remanufacturing a portion of these tractors could provide the basis for a significant business. Nationwide, figures indicate that while the number of tractors on farms decreased by a modest 2.6 percent between 1981 and 1983, retail sales of new tractors dropped by 31 percent for the same time period. Farmers are keeping their tractors longer, making remanufacturing an important alternative to replacement.

Repair Mall

The Repair Mall is a brand new economic development idea. With Erie County, Pennsylvania's population of 279,780 to service, a few malls of this type could generate an additional \$8 million income for the region's economy. Some 440 new jobs could be created, and the shops initially established in the mall (clock, watch, furniture, refrigeration, other electrical repairs, etc.) would be the basis for continuing and expanded economic prosperity down the road.

Each year the average U.S. household spends about \$80 on repair services. This includes items ranging from radios to jewelry. Various repair shops dispersed throughout the community traditionally do this work. Most shops are small, employing between one and five people. Sometimes the local shops cannot do the repairs on site and must send the product out of the region or state.

One way for a local community to tap into and expand this repair market, promote new vitality and create more jobs is to develop a Repair Mall. This mall would be one spot where just about any household item you broke could be fixed. Existing Erie County, Pennsylvania shops would not be the only ones that might locate in these centrally accessible facilities. Additional homegrown repair businesses could also spring up after the industry establishes this new economic magnet.

Two factors will energize the job and income creation potential of each mall. One is that a centrally accessible facility will encourage more items to be repaired. Many products either get thrown out or stay broken because repair places are unknown, don't exist, are too far away, don't have the needed technical skills, or just cost too much. A repair mall could change that. By clustering shops and know-how, it will improve the repair industry's legitimacy, increase its overall volume and create additional jobs.

A second economic factor giving life to this mall is that additional kinds of products could be restored to "new" condition and sold with new product warranties -- thereby decreasing the need to import these items into the region. Moreover, concentrating repair skills in one place will allow interaction between entrepreneurs and craftspeople. The mall will also provide an immediate availability of many different parts and types of equipment. It is thus reasonable to expect that the mall's service list would expand to cover items previously not repaired. It might even "incubate" new job-producing enterprises that would move into larger quarters elsewhere.

Special features of a Repair Mall could work to assist all occupants. There could be shared use of business services (bookkeeping, photocopying, secretarial, etc.), docking facilities, meeting space, cafeterias, pick up and delivery vans and a mailroom.

The Repair Mall can bring added vitality to the local economy. Residents won't have to rely as much on newly manufactured products coming into the region. Instead they can regenerate what they already have to even better than new -- "better" because local jobs and increased economic vitality will result.

Band Uniforms

Nearly all the band uniforms in the United States are purchased from just four companies. In Columbia County, Arkansas there are seven high schools. Each one of these high schools has a band. The average number of band uniforms needed is 100 to 150. This means that in Columbia County alone there are over 700 band uniforms needed by high school students. The cost for all these uniforms is over \$70,000. While some would be handed down from student to student, new ones eventually need to be purchased.

In Oregon, two years ago, one enterprising mother decided she could make band uniforms for the local high school at a cost less than the high school was currently paying to an outside contractor. She submitted a bid for the contract, it was accepted, and now she is supplying band uniforms for the surrounding six high schools. Such an opportunity could also exist in the Columbia County region.

Building Doors and Windows Locally

When a Searcy, Arkansas lumber yard and home remodeling center owner heard about regeneration, he realized he had already been practicing it. Local economies remain vulnerable to unemployment and can stagnate when new products are not generated. The same is true for small businesses. That's why this business man took advantage of an import-replacement opportunity that helped his business thrive.

He was well aware that many doors were sold at his home remodeling centers. He also know that these doors were imported from elsewhere. He then looked around at the productive capacity of his lumber yard. After adding everything up, sixteen unemployed Searcy workers were hired to go into the door manufacturing business. Located in a section of one of his lumber yards, success of this new venture was helped through a ready supply of regionally produced lumber. A known market demand of doors at the remodeling centers further helped to lower risks.

Here was a simple economic development strategy that opened Searcy's business community to a little more diversity. How? Through new work that was aimed at the local community. Every community has similar doors to opportunity that it can open. After a regeneration workshop took place in Chester, Pennsylvania in 1985, one of the fifty-five opportunities participants identified promised to do a similar thing for Chester. The proposed business opportunity was a Window and Repair Shop that fixed old windows and installed new ones.

III. OPPORTUNITIES IN ENERGY

Residential Energy Conservation

There are 102,834 homes in Erie County, Pennsylvania. These houses use 9.5 trillion BTU's of energy for space heating each year which cost residents about \$57 million. Eighty-seven percent of this energy is from gas and five percent from electricity.

An alternative to spending all of this \$57 million on space heating is to reduce the total bill through conservation practices such as increasing roof insulation values to R-25 or R-30, double glazing windows, weather stripping, and caulking. These, along with no-cost actions, could reduce overall heating expenses up to 50 percent, thereby saving Erie County residents nearly \$30 million per year and providing markets and employment opportunities for energy conservation firms.

The exact market for energy conservation in Erie County would not be known until a market search could be undertaken, but with over 102,000 homes, the market would be large.

Local Energy Production: Cogeneration

Last year Arkansas used 169 trillion BTU's of energy in space heating and consumed 22.3 billion kilowatt hours of electricity. Space heating costs alone came to \$850 million. An alternative to exporting this money to pay for the energy Arkansas uses is to produce more energy within Arkansas by using locally available resources. For example, small-scale hydroelectric, cogeneration and wood-fired

electric plants could significantly reduce the amount of energy imported.

Outfitting each large factory in Scott and Polk Counties with a 200 Kw cogeneration unit would add over 2.4 megawatts of additional electric generation capacity and produce 16.8 million kilowatt hours per year -- over six percent of the total consumed in these counties. At five cents per kwh, this would bring in about \$840,000 per year.

Outfitting half of the houses in Scott and and Polk Counties with small 10 Kw cogeneration units could, besides heating each of the houses, produce approximately 50 megawatts of additional electric generating capacity that could produce 215 million kwh per year (assuming the units were running half time). This is 78 percent of the total electricity consumed in the two counties. At five cents per kwh, this would be \$10.7 million per year -- about \$2,187 per house.

IV. OPPORTUNITIES IN HOUSING

Owner-Built and Rehabilitated Housing

Almost half of Chester, Pennsylvania's families have annual incomes that fall below the poverty line. This means that affordable quality housing is not an alternative for many people. There is a solution to this problem. It is helping families build or rehabilitate their own homes. Owner-building achieves good quality housing for lower costs, stimulates the construction industry and builds the local economy.

The City of Chester added some 1,200 housing units during the 1970's. This total could be increased to reach more low-income families in one of two ways. First, all new construction work can include an owner-builder provision to let people trade their labor for a down payment and lower mortgage costs. Secondly, a public or community-based program can organize low-income families to build or rehabilitate their own homes.

Owner-building can save a prospective owner about a third of a house's market value. Residents of Chester could, using this technique, have better housing for the same cost, or the same quality for less cost. Counting the multiplier effect, in that each dollar of local sales could generate up to \$2.00 of total sales in the area, there is an opportunity for even further economic regeneration of the city's economy.

Owner-built housing is labor intensive, and it addresses the needs of low-income people by creating beneficial economic activities

that rely more on people's available time and less on money. In addition, there can be quality improvements in housing by allowing people to help design housing according to their own needs, and styles and with a greater sense of permanence or roots. Owner-building can create an experience that makes a house a home. Moreover, learning the building process and construction skills may qualify owner-builders for new, better paying jobs.

On the community scale, this innovative shelter work could help support Chester's construction industry. By putting more locally-built housing in economic reach, self-help housing will call upon and strengthen local contractors and building supply industries. Banking enterprises will likewise benefit. A revival of regionally produced construction materials could further work to replace the dependence on components or even pre-fabricated units imported from elsewhere. When owner-building involves several families at once, there is the added dimension of community development whereby housing fosters the strengthening of social infrastructure - vital to building any local economy.

Home Market Search: Locating "Hidden" Opportunities

By all accounts, renovation and rehabilitation are very much "hidden" markets within the construction industry. Renovation has not received the attention that new construction has. New construction is more glamorous, visible, and easier to track with statistics. Renovation is primarily an industry of small, local, privately owned companies. Recently, however, renovation's growth has surpassed that

of new construction, and its stability and future growth seem assured for several reasons: 1) prime land for building new structures is becoming increasingly scarce and more costly; 2) new construction costs are generally higher than renovation; 3) tax incentives are available for rehabilitation/renovation; and 4) lifestyles and demographics are changing to favor renovation.

A Home Market Search ties in directly with this economic activity. It is designed to locate these somewhat invisible markets which center on the home. A Home Market Search conducted in Jackson County, Arkansas, would identify specific market opportunities for local businesses such as the need for insulation, new windows, doors, solar greenhouses, additions, more efficient heating systems, etc. This would allow local businesses to expand or diversify according to the expressed needs and demand of the community. In addition to these home-related construction opportunities, the search would also determine the need for additional services such as lawn care, landscaping, housecleaning, babysitting, day care, etc. This information will clearly identify niches which entrepreneurs and existing businesses interested in providing such services could fill.

The total market in the United States for residential renovation was estimated to be \$50 billion in 1983. The National Association of the Remodeling Industry projects a \$73.2 billion annual market by 1988. In Jackson County alone, this means that there is at least a \$4.5 million market per year. A Home Market Search can more clearly identify the components and size of this market to the benefit of local business enterprises and the communities of Jackson County. If

the \$4.5 million market for home improvements were to go only to Jackson County businesses, the effect upon the local economy would be tremendous. Additional job opportunities would be generated, and the multiplier effect of this amount would be over \$6.4 million.

IV. OPPORTUNITIES IN HEALTH

Local Hospitals Can Lower Disease Rates and Save Money

Each year, two million people -- while in the hospital -- get sick from hospital-borne infections. By one estimate, hospital-borne infections cause 50,000 deaths per year and are the sixth highest cause of death in the United States.

The most effective way of dealing with this problem is to prevent it. An infection control program, costing an average of \$40,000 to implement, could save a 250 bed hospital about \$250,000 a year -- to say nothing of the saved lives.

Columbia County has one 99 bed hospital. With an effective infection control program, it could save close to \$100,000 per year. An infection control program consists of routine surveillance by a nurse who monitors infection outbreaks, identifies patterns of infection occurrence and discusses them with an infection-control staff. The program improves patient care and saves money for hospitals, insurance companies, government agencies and patients -- anyone who pays hospital bills.

This program is one of the many ways your community can start saving money and lives by improving health through prevention while at the same time containing costs within the health care industry.

VI. OPPORTUNITIES IN FOOD

Local Food Production

Residents of the five-county southeastern, Arkansas region spend about \$223 million each year on food. Assuming conservatively that 50 percent of this food is imported into the state, this means \$111.5 million is spent for foodstuffs produced elsewhere. Of this amount, about \$88 million leaves the state and counties. This is a drain on the regional economy; money is leaking out of the area to pay for many items which could be produced locally providing income for farmers. More than \$30 million could be going to local growers for their commodities, and this would result in the circulation of an additional \$63 million in the regional economy.

This extra \$30 million going to farmers could result in 305 additional farm jobs. Another 85 jobs could be created in providing goods and services to farmers, for a total increase of 390 new jobs.

Large-scale farmers could continue to grow the soybeans, wheat, rice, cotton and grain sorghum that they are currently producing. But there is a great potential for these farmers and smaller farmers to diversify and take advantage of local and regional markets. Farmers could produce more fruits and vegetables as well as poultry, dairy products, pork, etc. -- whatever is appropriate for each farm situation. Approximately 20 percent of the farms in the 5-county region are less than fifty acres and have good potential for diversification.

Agriculture in the five counties needs to be and can be revitalized. Increased production of fresh fruits and vegetables and other commodities not currently produced would provide local consumers with more nutritious and flavorful foodstuffs as well as stimulate the economy.

Local Food Processing

Arkansas imports about \$1.7 billion worth of food each year. A good deal of this is processed food. An alternative to importing processed food is processing food locally. If just the beef, veal and pork consumed in the five counties of southeastern Arkansas were processed there, employment opportunities would be created for 530 people.

A freezing, drying, and/or canning facility located in the region would stimulate additional food production and diversification by farmers and directly and indirectly provide additional jobs. With the production and milling of rice in the area, a local entrepreneur could also take advantage of this resource in the development and marketing of a healthful food product directly to local communities.

Few processing plants exist in the region. Another local processing opportunity is a small flour mill that could provide the local market with the flour it consumes. Currently most soybeans, wheat and rice are marketed to brokers or large cooperatives. A regional flour mill for these crops would encourage bakeries that produce whole grain products to locate nearby.

Farming the City

Think of cities and no doubt concrete, asphalt and automobiles will come to mind. Farms are probably the last thing someone would expect to find within an industrial, metropolitan area. Yet Chester, Pennsylvania residents might benefit from considering a healthy model in Cincinnati, Ohio. Last year David Rosenberg's successful 12-acre farm grossed over \$40,000 on just four acres. It presents a bold challenge to other metropolitan areas to make such innovative use of available land.

Lettuce, which is Mr. Rosenberg's biggest crop, has great potential for urban farming in Pennsylvania. Almost all the lettuce consumed in Pennsylvania is imported from other states at a cost of \$262 million every year. Since only about \$75 million of this remains with Pennsylvania's retailers, the state's consumers are actually exporting greenbacks to get their salad greens. Lettuce produced on urban farms would provide city dwellers with fresher, tastier greens. In return, urbanites would be making an important contribution to the local economy.

Bringing jobs to people through farming in or near cities is one benefit from such productive land use. There are also the spin-off economic activities of providing farm supplies and processing and distributing food locally. Moreover, consumers can be assured of top quality, fresh in-season foods for their tables through direct purchases from nearby farmers.

In addition, a new type of farmer could be positively affected. The farmer could develop reliable local markets instead of getting

caught up in the uncertainties of export trade. By making intense use of their own or rented land, using multiple cropping techniques, and applying smaller-scale technologies, farmers like Mr. Rosenberg could also avoid indebtedness and high interest rates. Recycling organic urban wastes as fertilizer could, furthermore, cut demand for trash disposal.

By following the above practices, Mr. Rosenberg's city farming achieves lettuce yields higher than both state and national averages. Produce sales go to nearby wholesalers, local restaurants or reach people via his city farmstand. Sales of fresh, crisp local produce could grow even higher. They are not as high as Mr. Rosenberg thinks they can be because all of the marketing arrangements for such new age urban farming are not yet in place. Estimates are that \$200,000 worth of produce is possible if all of Rosenberg's land were farmed.

This example parallels others that dot U.S. cities. Philadelphia, for instance, has a 115-acre farm within its city limits. Such urban farming is a natural step forward from the broad base of urban gardening that now exists.

Yogurt- An Opportunity for Farmers

The past ten years have seen significant changes in the American diet. Health-conscious consumers have begun to demand fresh, wholesome, nutritious foods. One of the best examples of this change in diet is the increase in yogurt consumption. Between 1973 and 1983, per capita sales of yogurt increased over 110 percent. Last year Pennsylvanians consumed over 38 million pounds of yogurt, worth \$45.6 million.

Manufacturing yogurt could be an excellent way for some dairy farmers to increase the value of their milk production. If a suitable building is available, the cost of setting up a yogurt plant is about \$20,000. In New Jersey, a small dairyman was able to set up a yogurt plant for only \$5,000 by scavenging and adapting used equipment.

Residents of Erie County, Pennsylvania consume over 895,000 pounds of yogurt every year, with a retail value of just over one million dollars. Producing all the yogurt that is consumed in the County would use 895,000 pounds of milk and bring in a gross income of \$722,000. A successful yogurt operation could then lead to additional on-farm dairy production, including cheeses.

Fresh Herbs for City Markets

In the South Bronx, amid vacant lots and crumbling buildings, a commercial greenhouse and herb nursery are thriving. The market for the 32 different herbs produced on this urban farm are more than 200 of New York's restaurants, hotels, and supermarkets. This innovative enterprise, Glie Farms, Inc., sells \$960,000 worth of herbs each year and employs 32 people.

The Pittsburgh-Beaver Valley region of Pennsylvania has a population of 2.4 million, about one quarter of New York City's population. There are over 1,450 restaurants in Pittsburgh alone. If some of these markets were tapped, sales of herbs could potentially equal \$240,000 per year. Such an enterprise could employ at least eight people.

Additional markets for fresh vegetables in the winter, specialty crops and flowers could greatly increase this potential. Using the waste heat from local energy production plants, as is done in eastern Pennsylvania, could add even more production capacity to the greenhouse concept.

Better School Lunches

Joe Crawford, principal in a public school in North Dakota, had a hunch. Most discipline problems at his school seemed to occur in the afternoon, and Crawford figured that students who didn't eat a good lunch were more likely to cause problems. By providing the most nutritious, tastiest food available, Crawford figured that students would be able to concentrate better throughout the afternoon, and the discipline problems would diminish. With a donation of some wheat by local farmers, Crawford's school began grinding their own wholewheat flour and made all their own baked goods. Instead of the usual cold, white rolls, students were treated to warm, just-out-of-oven wholewheat rolls. The wholewheat flour was also used to produce all the pasta products the school needed.

Later, as superintendent of schools for North Dakota, Crawford was able to allocate federal money to the state's schools so that they could dig root cellars and store a year's worth of locally produced potatoes and other root crops. Other schools began processing some of their own meat and vegetables.

Farmers have been eager to participate in these programs, since dealing directly with the schools eliminates the "middle man," and

increases the farmers' share of the profits. The schools find that processing their own food is cost effective. Also, since students like the food, they are more inclined to eat school lunches, and there is less waste. Parents have been pleased with the results, as their children eat better and are getting good food at a reasonable price. An additional benefit is that by helping with the processing, students are able to learn useful skills.

School lunches are often ridiculed as being gluey, rubbery, tasteless food more suitable for throwing than for eating. On-site food processing in schools, even on a small-scale, can improve the quality of school food at minimal cost. By buying their food locally, schools can provide an additional source of income for the area's farmers.

Green Power: Greenhouse/Electric Power Plant Connection

Plants are now being grown with the aid of waste heat from electric generating facilities. Starting in 1980, four greenhouse operators began purchasing waste heat from a coal-fired electric generating station in rural Montour County, Pennsylvania. In the South, Jackson County residents could build on a similar opportunity in neighboring Newark, Arkansas.

The Montour Waste-Heat Greenhouse Project is the largest of its kind in the United States. Joining the first grower, Bryfogle's, are AgrowNautics, Green Empire and Pepperidge Farm. Bryfogle's recently built a three-acre addition to the original three-acre greenhouse. This company raises a wide variety of flowers including poinsettias,

geraniums, gloxinias, bedding plants, Easter lilies and other holiday crops.

AgrowNautics is the newest arrival in this agricultural-industrial park. Their one-acre greenhouse produces hydroponic leaf lettuce (grown without soil). Green Empire's original plan called for the development of a 93-acre forest between the power plant and a nearby preserve. Gourmet Shiitake mushrooms are scheduled to be grown on oak logs there. A one-acre greenhouse will nurture the mushrooms along during the winter months. Pepperidge Farm raises hydroponic tomatoes in their company's six-acre greenhouse. During peak season, 50,000 pounds of mushrooms are shipped for fresh-produce markets in the Northeast.

A possible opportunity for the Jackson County region includes two coal-fired units run by Arkansas Power and Light. These units make up the Independence Steam Electric Station in Independence County's town of Newark.

Building the greenhouses near the electric station will be a key requirement. At Montour, warm water (about 100 degrees F) is piped a half mile to the greenhouse complex from the power plant's condenser-cooling system. Temperatures of the discharge heat, while not hot enough for most industrial processes, are ideal for heating greenhouses. Bryfogle and Pepperidge Farm each make use of unique greenhouse floor installations that heat the inside to a cozy 70 degrees.

The Montour enterprise bears an especially high growth potential. Simply, these greenhouses use a mere one percent of the available

waste heat. Moreover, the future impact on the local economy will be a healthy one. Greenhouses typically employ three to five people per acre of growing area.

Just a few counties away from Montour another electric station is helping put more food on the table. York County's Brunner Island Steam Electric Station is using waste heat to raise catfish.

VII. OPPORTUNITIES IN RESOURCE MANAGEMENT

Forest-Based Development

The hardwood forests of Erie County, Pennsylvania are a valuable resource. Total commercial forestland in the county stands at over 212,000 acres. A current favorable growth/removal balance of 4.2 million board-feet per year indicates an economic potential on this land.

These forests could be harvested in a regenerative way yielding products such as lumber, furniture and firewood, while controlling hillside soil erosion, maintaining water quality, and providing refreshing sites for outdoor recreation.

A forest manager, knowledgeable in all aspects of forest development, maintenance, and harvesting, could, for a management fee, hire out to local timber holders. Such a person would be able to provide the management expertise needed to maximize the value of various products, from quality lumber to firewood to mushroom production. These are products the typical small timber stand is capable of producing. In Minnesota, one forest management organization is now working in a similar way for the comprehensive regeneration of regional forestland.

Newly formed small businesses in Erie County would make a go of it by earning a percentage of the sales price of the forest products, after they have been sold. Other ways of financing a forest products development project could involve some equity participation by the forest manager. Forest owners could also get together and hire a forest manager or consultant to get their enterprise off the ground.

Waste Products Become New Products

Beauty is in the eye of the beholder, and so it is with waste products. The wastes from one industry may be a liability for those companies. But they could be the raw materials for someone else to make new products, or to use as recycled materials in a product already being manufactured.

Discarded automobile tires in the U.S. and Mexico are now being used to manufacture soaker hoses for home gardens and commercial irrigation systems. These hoses make inexpensive, very effective, easily laid, durable, and trouble-free drip irrigation systems, utilizing recycled rubber. Such a system typically reduces water usage by 30 percent to 50 percent.

Plastic beverage bottles are another waste product which can be used in the manufacture of new products. These seemingly useless PET (polyethylene terephthalate) bottles can be crushed, ground, and processed to reappear in scouring pads, paint brush bristles, sails, fiberfill for sleeping bags, and foam insulation. Using this material requires 50 to 60 percent less energy than using new plastic. Currently, only about 100 million of the 500 million pounds of bottles manufactured each year are recycled.

On an industrial scale, the New Jersey Zinc Company buys waste materials containing zinc from steelmakers, automobile shredders, pharmaceutical manufacturers and the textile industry. New Jersey Zinc converts these by-products into high quality zinc dust and zinc oxide for use in rubber, paints and animal feed supplements. These sources of secondary materials supply about 80 percent of the company's zinc needs.

Waste products from food processing plants are potentially very useful resources. Tomato and peach processing wastes can be digested anaerobically to produce methane gas. Potato wastes could be transformed to produce a number of products: biogas fuel, liquid fertilizer, fibers for paper products, or even a new protein product.

An assessment of waste products generated in Arkansas' Polk and Scott Counties would point out opportunities for entrepreneurs and existing business enterprises to utilize wastes in productive, regenerative ways. This waste product assessment is included in The Regeneration Project's Local Economy Inventory.

New Uses for Old Tires

Anyone who has a couple of old tires taking up space in the back of the garage knows what a nuisance they can be. Nationwide, tires pose a significant disposal problem. There are two billion used tires scattered across the United States. Every year, another 250 million tires are added to this number. They take up valuable space in landfills, can cause smoky, hard-to-fight fires, and provide breeding grounds for rats and mosquitoes.

These tires can be put back to work. Almost thirty years of research has proved that ground rubber, when added to asphalt paving, makes road surfaces last up to five times longer and improves tire life. The federal government now offers a five percent increase in federal aid to state highway departments if they use this rubber/asphalt mixture.

Another use for ground rubber is as a fuel additive in coal burning. Tests have shown that a mixture of 15 percent ground rubber and 85 percent coal significantly raised BTU output, while reducing particulate emissions to about fifty percent below Environmental Protection Agency standard for protecting the environment.

The driving force behind these imaginative uses for old tires is a company called Energy Recovery Systems (ERS), which has developed the technology required to separate the rubber from the fiber and steel found in today's steel-belted radial tires.

A 20,000 to 40,000 square-foot tire shredding plant in Cleveland is expected to employ at least 100 people and will be set up to handle 1,000 tires an hour, 24 hours a day. It is estimated that the plant will cost \$2 to \$3 million to build. Revenues will begin to accrue almost immediately, at an annual rate of \$8 million per year. Once the existing local supply of old tires has been processed, the company will use its own trucks to retrieve tires within a five hundred mile radius of the plant.

ERS currently has a tire shredding plant operating in Maryland. Long range plans at ERS call for five plants to be operational by the end of 1986, with twenty plants on stream by the end of 1987. At present, ERS believes their biggest challenge will be keeping up with the demand for pulverized rubber.

This new technology will allow communities to turn an expensive waste disposal problem into a valuable resource. As an asphalt additive, recycled crumb rubber will improve highway surfaces. As a coal additive, crumb rubber can decrease the use of non-renewable coal

supplies, while providing a cleaner burning fuel. Even the fiber and steel extracted from the tires can be sold, providing additional income.

Saving Money, Producing Energy

Recycling + Resource Recovery = Regeneration, or at least one example of it. In the city of Groton, Connecticut (population 10,000) mandatory recycling of glass, cans, newspapers and magazines resulted in disposal cost savings of \$2 million in 1983. This represented a 16 percent reduction in the overall waste stream.

If a similar program were applied to the five counties in southeastern Arkansas (population 159,550) where solid wastes are generated at a rate of over 298 tons per day, it would mean that up to \$31 million could be saved each year. Annual wastes would be reduced from 108,000 tons to 91,000 tons.

Many cities and regions are additionally converting wastes to energy through resource-recovery plants. These facilities burn trash to generate steam or electricity. Burning reduces the volume of waste to be buried by about 90 percent, and each ton of garbage produces 450 to 550 kilowatt hours of electricity. This is enough to supply the average residential customer with electricity for two and a half weeks. Utilities buy the electricity. More than 50 resource-recovery plants are already operating in the United States. While some are owned by municipalities or local governments, the majority are privately owned and operated.

If the remaining 91,000 tons of waste in the five counties of Chicot, Desha, Drew, Jefferson and Lincoln were burned in a resource-recovery facility, 45 million kilowatt hours of electricity would result. This equals about nine percent of the total electricity consumed by residents each year. Sold to utilities at five cents per kwh, some \$2.2 million of income would be generated.

Turning Over a New Leaf with Municipal Composting

Most people would agree that trees help make cities more liveable. They provide shade, color, homes for birds, and a huge crop of dead leaves every autumn. Cities spend a great deal of time and money collecting these leaves and hauling them to the landfills.

Alternative to disposing of leaves is turning them into compost. Composted leaves, because their nutrients are easily taken up by plants, are a valuable resource for gardeners, who use them to improve the water holding capability and nutrient levels of their soil. In community gardens, composted leaves are an inexpensive way to reclaim neglected soils.

In Cleveland, Ohio, when concerned residents and gardeners learned that disposing of the annual crop of 280,000 cubic yards of dead leaves cost the municipal area \$177,000 every year, they formed the Greater Cleveland Ecology Association (GCEA) to come up with an alternative. Comprised of fourteen municipalities in the Cleveland area of Cuyahoga County, GCEA has been coordinating municipal leaf composting since 1980.

GCEA studied composting programs in other communities and determined that the fourteen communities in their area would be able to save money by composting their leaves. By 1985, five composting centers were operating, transforming 180,000 tons of leaves into 10,000 cubic yards of compost. GCEA decided that one third of the compost produced should be given away to Cleveland's urban gardening program. For the remaining 6,500 cubic yards of production, prices range from 75 cents a bushel when people pick up the compost themselves, to \$83.50 per five cubic yards delivered to the owner's yard.

This type of leaf composting is most efficient in urban areas, where the volume of leaves is high enough to justify the costs of setting up a composting facility. By using available staff and equipment, cash outlays can be kept to a minimum. With a composting program, communities can reap a useful, profitable harvest from their annual crop of leaves.

VIII. OPPORTUNITIES IN COMMUNITY ECONOMIC DEVELOPMENT

Regeneration Day

Spring and Easter are traditional times in Christian and other communities for renewing personal faith and community belief. In the spirit of the season, a new holiday could help focus Chester, Pennsylvania's efforts to provide improved work opportunities for all its citizens. "Regeneration Day," could be celebrated the Monday following Easter or the first day of Spring. It would be a day for community regeneration, just as Easter Sunday was a day for Christian and personal regeneration.

Residents and businesses could use this day for community actions such as cleaning out storage areas, painting public property (parking meters, fire hydrants and cross-walk lines), and coordinating the collection and exchange of salvageable items that can be repaired, resold and reused.

Everyone manages to accumulate all sorts of belongings over the years. Whether a prized toy from childhood or a favorite gadget, much of what we store one day gets labeled as junk by those around us. The choice then becomes to let this "unburied treasure" sit and collect dust, or to part company and throw it out. The problem with throwing out the fruits of our spring cleaning is that items potentially useful to someone else get lost forever. Another price paid is the filling-up of increasingly scarce landfill space.

Why not turn our burdens of junk into opportunities for work? On Regeneration Day, all potentially worthwhile materials could be piled

up at curbside. Regeneration-minded entrepreneurs would then be free to pick up anything that was of interest. Whatever remained would be carted away by the municipality to the landfill or perhaps to a "regeneration mall." Here, everything capable of being fixed, patched, refurbished, or recycled would find a patron. In this way, some of the dusty relics piling up around us would be a source of new jobs and economic vitality.

As the years go by, Regeneration Day could grow in its influence. Communities would learn to rely more on their own resourcefulness. Spin-off projects might involve local service clubs and school classes. A similar event takes place every year in Greece. Citizens of many communities mark the day after Easter with a special sign of renewal. They gather together and decoratively paint their streets and curbs. This community-wide activity is a festive occasion of outward renewal that symbolizes the Easter and springtime inner renewal of each individual.

A new repair industry could also begin to flourish, providing welcome employment opportunities. For those already working, Regeneration Day might spur the cleaning out of those cluttered drawers, closets and attics. Maybe even more important, a holiday focused on community work could be the basis to regenerate the attitudes, goals and ideals of our community.

Green Pages

In addition to "Yellow Pages" which traditionally appear in every community's telephone book, "Green Pages" could be produced by a

community group. These Green Pages would list those businesses, services, products, etc. which provide import substitutions. These listings would support the local economy by helping individuals and businesses know and rely more on local resources. The Green Pages could foster community economic development by emphasizing goods and services that replace items which have been imported from other areas.

There is already one such directory: The Green Pages, An Ozark Bioregional Directory. The 74-page directory lists about 600 small, ethical businesses located in the region. Many offer unusual or hard-to-find items.

Local Exchange and Trading System

A local exchange and trading system is a way for the residents of Jackson County, Arkansas to exchange goods and services without money. It is simultaneously a way for your community to build economic wealth and vitality while not spending any money. For the unemployed people of your region, as well as those with a little bit of extra time, this system is a means to exchange talents, surplus goods and products with each other. It is also a network through which you can purchase everything from firewood to plumbing and auto repair to the goods and services offered by your local stores. Likewise, it would be a place where you could sell items as well as your talents and skills at repairing automobiles, mowing lawns, computer programming, guitar lessons, babysitting, etc.

A local exchange and trading system has members. The members' accounts hold "green dollars," a quasi-currency that is equivalent in

value to federal dollars, but no money is ever deposited or issued. Accounts start at zero and members can use the green dollars only with other members.

A local exchange and trading system is essentially a self-regulating economic network that's applicable to any community. It allows a community, in effect, to issue and manage its own money supply. It has no political and ideological bias and it can be used by all sectors of the community. The structure and set-up of the system is extremely simple. It can be implemented in any region in a rudimentary form at minimal cost. Basic equipment needs are met with a home computer and a telephone. When operational, it is entirely self-supporting and capable of supplementing a region's economy.

There are at least five local exchange and trading systems now in existence in Canada and in the United States. One in Vancouver, British Columbia has even gone so far as to have businesses join. This works through employees who have the choice of being paid in "green dollars" (the medium of exchange that exists in a local exchange and trading system) and customers who have the choice of purchasing some items in the stores with these same green dollars.

If just half the unemployed people in Jackson County were to participate in a local exchange and trading system, and each exchanged and traded ten dollars of goods and services per week, over \$409,000 dollars worth of economic activity would be generated each year.

Buying Local: Chicago's Development Plan

Following the lead of some other cities which have been adding "buy local" policies to their agendas, Chicago's 1984 Development Plan sets a 60 percent local purchasing goal, with 25 percent of city purchases scheduled for minority businesses and women-owned firms. Each year the City of Chicago purchases approximately \$400 million worth of goods and services. Under their plan \$240 million will go directly to strengthen and support local businesses and circulate within the local economy.

The city is primarily relying on informational initiatives to achieve these goals, getting the word out through conferences, workshops, and intermediary associations. But some stronger measures are also being tried. These include a modest two percent bid reduction to city firms and expediting payment of invoices. Some relaxation of bonding requirements is also contemplated.

The Chicago Workshop on Economic Development is a coalition of community-based organizations which promotes state and local policies to foster community economic development. The workshop will be publishing a manual on city purchasing for community organizations.

Expanding Local Businesses in the Local Marketplace

New business opportunities await Allegheny County residents in their back yard. By replacing goods and services coming into the region, new and existing enterprises can achieve increased vitality. An innovative program in Lane County, Oregon has pioneered the connection of local companies and markets. A similar effort in

Allegheny County could realize over \$2 million in new contracts and business-cost savings. What's more, some 100 jobs could be created.

Lane County's "Buy Oregon" program is spearheaded by a community development organization that focuses on the regional economy. The "Buy Oregon" program works through a competitive bidding process. A staff person meets with business and government purchasers to identify goods and services that will be needed over the next year. Regional suppliers then write up bids for these items upon receiving notice of who needs what. "Buy Oregon" in turn forwards these bids to the purchasing companies, where all decisions to buy locally or not are made.

One example is the Willamette Poultry Company for which "Buy Oregon" helped to identify a major new market. The company then expanded from just supplying fresh frozen poultry to becoming a processing plant. The newly discovered local market leveraged a \$1.5 million facility expansion and many new jobs.

There is good reason for expanding local business opportunities in Allegheny County's marketplace. Four benefits support this goal:

- 1) Small businesses will receive special help in getting established. Small businesses and their expansions are the number one source of new jobs.
- 2) Local market connections encourage diversification. Companies will add new work to old work and create a more stable base of employment.
- 3) Chronic unemployment can be reduced or prevented. Becoming a more diversified economy leads to less unemployment vulnerability.
- 4) Finding local economic opportunity places control in the hands of Allegheny County residents.

Regenerative Tourism

Tourism is big business in Arkansas. Each year approximately 13.8 million travelers visit Arkansas, spending about \$1.6 billion throughout the state. The figure for Columbia County is some \$9.2 million. If these visitors stay at a motel chain owned by a corporation outside the county, a good deal of the money spent on lodging will be drained out of the local economy.

An alternative to these chains are locally owned Bed and Breakfast or Country Inn establishments. These rustic inns typically develop from the restoration of old farmhouses. Their special appeal is that they capture local history and culture. Periodic descriptions of them appear in the travel sections of Sunday newspapers throughout the country. Travelers of all kinds, from weekenders to newlyweds, appreciate the charm of a bed and breakfast inn.

Moreover, such establishments can contribute to building a local economy by becoming integrated with other small businesses. Local foods are one instance. Bed and breakfast places in Columbia County could feature local fruits, vegetables, grits, catfish, meats, eggs, cornbread, and jams. Other nearby enterprises with which a range of these inns can associate are restaurants, wineries, stocked lakes or streams for fishing, craft shops, and folk arts centers.

Many additional regional attractions can work alongside these establishments. A few possibilities are the development of horse, bicycle and backpacking trails, the sponsorship of bicycle races or marathons, and an annual arts or music festival.

Traditional thinking about tourism is that it is essentially an export-generating industry (enjoyment and memories). A regenerative way of thinking would consider how tourism could replace imports of a region as well. Educational and skill development for local people, along with reliance on nearby natural resources, are the way this can happen. Such an "Awaken to Arkansas" theme would help residents first, and visitors next, learn more about each region.

IX. NEXT STEPS: TOOLS FOR DISCOVERING OPPORTUNITY

For a community to locate and develop the opportunities specific to its resources, capacities, needs and interests, a more thorough study is needed than the overview presented in this booklet. To help communities make better, more informed decisions about their own economic development, The Regeneration Project, in cooperation with Resource Planning and Management Systems, Inc. (RPM) of New Haven, Connecticut, has developed a series of tools for starting, documenting and building the processes of regeneration. These tools work to inventory, in a comprehensive and systematic fashion, a community's capacities and resources. The results can then be used by the community, entrepreneurs and consumers in ways that will lead to the strengthening of the community's local economy. We see these tools as ways to identify and use the power of the local economy.

Manufacturing and Resources: Local Economy Inventory and Natural Resources Inventory

To locate opportunities in the manufacturing and natural resource areas of the community, The Regeneration Project and RPM have developed the Local Economy Inventory and the Natural Resources Inventory.

The Local Economy Inventory locates products being produced by the area's manufacturers, raw inputs needed to manufacture these products, waste by-products generated and the processes used to manufacture these products. From this inventory, local business

people will be able to identify new markets among their fellow manufacturers for the products they now produce, could produce, or for the waste by-products they generate.

After completing a Local Economy Inventory, the local business community, as well as new entrepreneurs and the community at large, will have the information that identifies opportunities for import substitution in their economy. In addition, they will have the information that will show how to increase the overall efficiency of the entire economy by a more thorough use of waste by-products (turning them into raw resources), and by increasing the capacity of local production facilities.

The Natural Resources Inventory is an inventory of all the resources that a community has at its disposal -- such as farmland, forests, rivers, and mineral deposits. With such an inventory, the community would be in a position to identify those resources that could be: 1) used by the local business community as inputs into their manufacturing processes and which could, thereby, substitute for imports; or 2) developed into new products to satisfy a local need.

The Local Economy Inventory and the Natural Resources Inventory identify waste products that could, for example, be used as inputs into a local food processing or food production facility -- as in the greenhouse and electric power plant connection example given earlier.

It could also identify waste products, such as organic sludge from a local brewery, that could be used as an animal feed, fertilizer or methane energy source.

Energy and Housing: Home Market Search, Energy Search:

In the energy and housing areas, new opportunities for present businesses could be found through the Home Market Search and Energy Search tools. Home Market Search is a survey that goes to homeowners or renters in a given area and asks a series of questions that identify markets for local businesses. Markets for insulation, roofing, housing additions, new homes, owner-built homes, lawn and garden care, daycare, housecleaning, repair, etc. are all located. Everything that is purchased for the home is inventoried in this survey.

The purpose is to secure as much of this market for local businesses as possible. The assumption is that the more dollars that stay in the local economy, the better off the economy will be. For this to work to maximum effect, the local business community needs to hire local people and invest their profits in local banks.

Not all of the opportunities need an existing business to take advantage of it, or a high capital investment. Such things as lawn or garden care, or daycare, are opportunities open to the aspiring unemployed youth, housewife, or high school student.

Energy Search is another tool. It is aimed at locating the energy conserving products or services that the business community would be willing to purchase.

Food and Agriculture: AgMarket and Farmer Search

In the food area, RPM and The Regeneration Project have developed AgMarket Search and Farmer Search. AgMarket Search is a tool which identifies local market opportunities for the agricultural community.

It consists of a survey that goes to all the bulk buyers of food in a given area -- grocery stores, restaurants, food processors, wholesalers, etc. -- and asks these groups how much of what commodities they would be willing to buy from local food producers.

In Pennsylvania's Lehigh Valley, AgMarket Search identified a \$20 million dollar market for local farmers. In the Southern Alleghenies region of Pennsylvania, the search located an untapped \$43 million market for growers. Because this additional revenue has a multiplier effect on the rest of the economy, developing the \$43 million market in the Southern Alleghenies could result in as much as \$86 million rippling through the regional economy. It would then make good economic sense for farmers to modify their production regimes and to diversify their local marketing opportunities.

Farmer Search is the other side of the AgMarket Search coin. Farmer Search identifies the farmers in the area who are willing to produce for the local market.

Workshops

In addition to the above market analysis and opportunity locator tools that identify regenerative opportunities in the local marketplace, The Regeneration Project and RPM also offer a series of in-depth workshops that can be directed at the specific needs, resources, and capacities of a given area. These workshop "next steps" are aimed at building understanding, coalitions and action potential in your community.

Conclusion

These are some of the tools that will help a community take charge of its economic destiny. They will help a community learn about its own internal resources and those external inputs currently relied upon. Their results will point out the next steps for setting in motion the abundant regenerative opportunities that are available to any community.

BIBLIOGRAPHY

- Akins, Teri. "Urban Herbs: Why Rosemary and Basil Ride on the Subway." The Wall Street Journal, 19 March 1985, p. 1, col. 4.
- Armstrong, Scott. "An old idea that's generating new energy." The Christian Science Monitor, 2 August 1984, p. 21.
- The Buy Oregon Fund. Making connections for local businesses. Eugene, Oregon: The Buy Oregon Fund, n.d.
- Carlson, Tom. "Doing Business With the City." The Neighborhood Works, October 1984, pp. 6,7.
- Clendinen, Dudley. "About Boston, A Garbage Dump That Is Town Showpiece." Times [New York], 2 August 1985, p. A7.
- Genard, Bill. "This 'Dinosaur' is a rare find." Morning Call [Allentown], 29 March 1985, p. B1, passim.
- Gottschalk, Earl C. "Owner-built Housing Program Flourishes Using 'Sweat Equity' for Down Payments. The Wall Street Journal, 5 December 1983, p. 31.
- The Green Pages. Drury, Missouri: New Life Farm, Inc., 1984.
- "In a Word, Plastics." Environmental Action, 16, No. 5 (1985), p. 7.
- Kern, Peter L. "NJZ Recycling Program Conserves Natural Resources, Cuts Fuel Usage." Sunday Call-Chronicle [Allentown], 17 February 1985.
- Logsdon, Gene. "He Took His Farm To The City." The New Farm, September/October 1985, p. 28.
- "Methane from Cannery Wastes." Food Engineering International, 7 No. 3 (1982), pp. 52, 53.
- National Geographic Society. News Feature. "Recycling, A Former Rarity, Enters Economic Mainstream." 20 March 1985.
- Nelson, Kris. "Local Exchange Trading System." Rain, January/February 1985, p. 17.
- Nesbitt, Beth. "Clearview Farms is committed to pork." Lancaster Farming [Pennsylvania], 18 August 1984, p. D24.
- Outlook, "Ceiling on household-improvement dollars expected to rise." Ad Forum, January 1985.
- Pennsylvania Power and Light Company, Montour Waste Heat Greenhouse. Allentown, Pennsylvania: Pennsylvania Power and Light Company, n.d.

"Potato Waste: Hidden Profits in those mountains of peels." Food Engineering, January 1985, p. 135.

Schulman, Roger, and Margaret Sabin. "A Growing Love Affair With The Scrap Heap." Business Week, 29 April 1985, pp. 69,70.

Shaffer, Ralph. "Redeeming old buildings is now No. 1 construction activity in U.S." The Christian Science Monitor, 6 December 1984, p. 39.

Tong, Peter. "From old tires to great leaky hose." The Christian Science Monitor, 11 June 1985.

Wald, Matthew. "Converting Waste to Energy." Times [New York], 18 March 1985, p. D1, passim.